ERCB Energy Resources Conservation Board

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Directive 007

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Replaces previous edition issued December 2007

Volumetric and Infrastructure Requirements

The Energy Resources Conservation Board (ERCB/Board) has approved this directive on September 20, 2011.

<original signed by>

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Chairman

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1 Introduction

1.1 Purpose of This Directive

This directive sets out ERCB requirements for reporting volumetric data and well status changes using the Petroleum Registry of Alberta (Registry), and it prescribes the manner in which data must be submitted.

Part 12 of the *Oil and Gas Conservation Regulations* requires each oil and gas licensee or operator in Alberta to file with the ERCB a record on the monthly activities at a well, facility, or pipeline. Part 12 specifies that the records must be kept and filed in accordance with *Directive 007*. Each record consists of the volumetric data of a well, facility, or pipeline, and any well status changes.

The ERCB gathers the data to maintain an accurate historical record of each well's hydrocarbon and by-product production. Among the many uses of the data are royalty calculation and verification, which ensure that Albertans receive their share of the natural resources.

The filing of this information enables the ERCB to track all production from a wellhead through to its ultimate disposition to market.

1.2 What's New in This Directive

This new edition of *Directive 007* includes the following update:

- Corporate amalgamations requirement.

1.3 How to Use This Directive

General Notes

From the October 2002 production month and thereafter, all licensees or operators are required to submit all well, facility, and pipeline monthly volumetric information and well status changes electronically to the ERCB through the Registry.

Directive 007: Volumetric and Infrastructure Requirements replaces the requirements for volumetric reporting and well status changes in the December 2007 edition of *Directive 007*.

As of January 31, 2008, the ERCB has not accepted "S" statements for the September 2002 production month or earlier or as otherwise directed by the ERCB.

Amended volumetric submissions are subject to a closed five-year reporting period.

On-line Supplement to the Directive

The *On-line Supplement to Directive 007* is available on the ERCB Web site to provide guidance to industry on submitting data to the ERCB using the Registry.

The Petroleum Registry of Alberta

The Registry is a shared, interactive, secure database accessed through the Internet. It facilitates the exchange of data among upstream oil and gas industry partners and among industry and the Alberta Ministry of Energy. As a central source of all volumetric data, the Registry's Web-based interface provides users with on-line access to information. The data submitted to the Registry are subject to system controls and front-end editing procedures before they are finally posted to the Registry. Front-end editing immediately identifies discrepancies for the submitting operator so that corrections can be made before final posting.

Each operator has its own method for submitting data to the Registry, which is controlled through the operator's user security administrator (USA) (see the on-line Registry Training System Module in the Registry).

The operator of an active facility or pipeline or one that during the preceding month had activities or was shut in for the entire month must report to the ERCB through the Registry by the 18th day of the month, or if the 18th is not a business day, the next business day or as otherwise directed by the ERCB. The ERCB Volumetric Data deadline dates are published under the Calendar tab on the Registry Web site at http://www.petroleumregistry.gov.ab.ca.

An accurate report of the preceding month's particulars of activities, products, and volumes associated with the operation of the facility or pipeline includes the following requirements.

2 Requirement

2.1 Well Information

1) The licensee of a well must notify the ERCB through the Registry of a change in well status within 14 days of a change of well status or before the submission of volumetric data, whichever comes first.
2) A licensee of a well must notify the ERCB of the following changes:
   - the date on which products are produced during drilling and completing operations (such as swabbing or drillstem tests [DSTs]);
   - the date on which well testing or other operations took place before a crude oil or crude bitumen well produced oil, before a gas well was placed on regular gas production, or before an injection or disposal well was placed on regular injection or disposal;
   - the date on which the crude oil or crude bitumen well first produced oil, or the date on which the gas well was placed on regular gas production, with the exception of swabbing and DSTs;
   - the date on which the well was placed on regular injection or disposal;
   - the date on which a well's production, injection, or disposal operations were suspended;
   - the date on which a well's production, injection, or disposal operations resumed after a suspension;
   - the date on which commingled production first occurred from an oil- or gas-producing well at which commingling of two or more zones occurs; and

- the date on which any other change in status of a well occurred.

3) For approval to change a well's status from oil to gas or vice versa, a licensee of a well must apply to the ERCB's Reserves and Pore Space Management Group.
4) A licensee of a well must ensure that all inactive wells are suspended in the Registry and in accordance with *Directive 013: Suspension Requirements for Wells*.

2.1.1 Well-to-Facility Link

5) The licensee of a well with an active well status must link the well to an appropriate reporting facility Identifier (ID).

The well-to-facility link is completed in the Registry. Well-to-facility links are done using one of two methods.

The first method is used when a link change is associated with a well status change—the edit well status process is used to identify the new facility link. The start date of the well-to-facility link will default to the well status date. An exception to this method is when the well status date is before Registry implementation, in which case the well-to-facility link is October 1, 2002. The second method is used when there are no well status changes—for example, when changing from a single battery to a multiwell battery, the "request well-to-facility link change" process is used.

A producing well may only be linked to one facility ID at a time, and an injection well may only be linked to one injection facility ID at a time.

Some active well statuses require linking the well to two facilities. Cyclical, steam-assisted gravity drainage (SAGD), and storage wells are linked to both a battery and an injection facility and are reported at one or both each month, depending on the activity.

2.1.2 Commingling

Directive 065: Resources Applications for Oil and Gas Reservoirs sets out the processes and application requirements for wells that are completed in more than one pool to produce without downhole segregation (commingled production).

6) An operator/licensee must:
   a) report commingled production from all pools as a total volume to one well event, and
   b) update the well status, through the Registry, for the well event that will be reporting production in order to identify the well events involved in the commingling.

All commingled well events will have a common gross completion interval, commingled pool code, and start date of the well status. A well event reporting production will have a producing status. Well events involved in the commingling but not reporting production will have their well status changed to "Commingled."

However, in certain instances, the ERCB may approve commingling on the basis that production continues to be allocated to individual pools and that this allocation is made on the basis of prescribed percentages. When this is required, the ERCB will identify the percentages to be used when allocating the total production to individual pools.

7) Where the ERCB has approved commingling with a percentage allocation back to each individual pool, the operator/licensee must
   a) not change the well status to "Commingled," and

b) report production for each well event separately based on the prescribed percentage in the commingling approval.

2.1.3 Well Volumetric

If during the preceding month an active well

- tested, produced, or received crude oil, condensate, crude bitumen, gas, water, or other substance,
- had crude oil, gas, solvent, water, air, or other substance injected or disposed of, or
- was shut in for the entire preceding month,

the operator of the well must report to the ERCB through the Registry by the 18th day of each month, or if the 18th is not a business day, the next business day or as otherwise directed by the ERCB.

The specific dates for ERCB Volumetric Data deadlines are published in the Registry under Calendars available on the Registry Web site at http://www.petroleumregistry.gov.ab.ca.

An accurate report of the preceding month's particulars of activities, hours, products, and volumes associated with the testing, production, injection, and disposal operations at the wells includes

1) By the 18th day of the month, or if the 18th is not a business day the next business day, or as otherwise directed by the ERCB, the operator of the well must accurately report
   a) the volumetric amounts of crude oil, condensate, crude bitumen, gas, water, or other substance produced from the well;
   b) the volumetric amounts of oil, gas, solvent, water, air, or other substance injected or disposed of into the well;
   c) the number of hours during which the well was tested or produced, was injected, or was used for disposal purposes;
   d) the volumetric amounts of sulphur emissions at the well;
   e) the volumetric amounts of gas flared, vented, or used for fuel at the well;
   f) the shut-in activity if the well was shut in for the entire preceding month; and
   g) any further particulars the ERCB may require.

2.1.4 Well Activity

1) The operator of a facility that has an active well status must
   a) submit an accurate report of all activities, products, volumes, and product movements for each active well;
   b) continue to submit an activity for the well until the well status is changed to a non-active well status and the well is not producing, injecting, or disposing; and
   c) report the gas that was produced at a facility when oil production is reported at a crude oil or crude bitumen facility.
2) For a well linked to more than one facility, such as those with the well status of cyclical or storage, the operator of the facility must report at one of the facility IDs each month.
3) When a well is linked to a new second facility during the month the operator of a facility must report a well at both facilities.

4) If a well's status is changed to an active status retroactively to a previous month, the operator of the facility must make the required monthly submissions for each missing month from the date the well status is changed.
5) If the classification of a well's volumetric gas well liquid code changes, the operator must submit amendments from the start date of when the change was made.

2.1.5 Concurrent/Consecutive Injection

1) If a well injects more than one product during the month, the operator of the facility must report a Concurrent/Consecutive Injection (CCI) code.
2) If a well injects more than one distinct product consecutively with ERCB approval, the operator of the facility must report each product injected, along with the hours of injection for that product.
3) If a well injects a product concurrently and it is reported separately, and if ERCB approval is obtained when the scheme is approved, the operator of the facility must enter the CCI code on each row as the same number and report the hours only once on one of the rows.

2.2 Facility Information

2.2.1 Volumetric Submissions

1) The operator of a facility must, on a transaction basis, report by identifying the activity, the product, and the volume received at a facility from a well or facility.

2.2.2 Amendments to Volumetric Submissions

1) The operator of a facility must submit an amendment when becoming aware of an error or when advised by the ERCB of an error in a monthly activity.

The ERCB will accept or may require an amendment to any monthly activity submitted for the previous five years or as otherwise directed by the ERCB.

2.2.3 Facility ID

1) Where a facility is constructed and operated, the licensee or approval holder of the facility must immediately obtain the appropriate facility ID(s) from the Registry for reporting purposes.

2.2.4 Compressor Station Facility IDs

All licensed compressor stations must have a facility ID, which is created automatically by the Registry upon receipt of a compressor station licence from the ERCB. This facility ID is used to report fuel, flare, and vent volumes at the nearest reporting facility. A compressor station is not a reporting facility, so a monthly facility volumetric submission is not required.

2.2.5 Water Source ID Request

Operators of enhanced oil recovery thermal in situ injection facilities that have a new, shallow, unlicensed well of surface water source (river/lake) can request a water source ID through the Registry. Once the system validates the data, a water source ID is issued.

2.2.6 Facility Change Request

If details about a facility need to be changed, an operator of the facility may update the changes through the Registry. This process is used to change facility name, experimental facility indicator, experimental approval number, steam quality percentage, and meter station to pipeline link.

The facility type and subtype cannot be changed because the facility type is part of the facility ID.

2.2.7 Facility Operational Status

Facility operational status indicates the status of the facility for a specific period of time. The most common statuses used are "Active" and "Suspended." Each time the status is changed, a history of the previous status is kept. The facility operational status is used when checking for missing volumetric data.

1) If the facility is active, its operator must report a volumetric submission monthly.
2) The operator of the facility must ensure that the facility has the correct operational status.

When the status is "Active," a submission of volumetric data is required in order to avoid noncompliance fees. When the status is "Abandoned," no submission of volumetric data is required.

Only the current operator of a facility can do retroactive facility operational changes. If a facility is made "Active" retroactively, a volumetric submission must be sent or it will be missing data and be subject to noncompliance consequences.

3) Where retroactive facility operational change is required, the operator of the facility must ensure that a volumetric submission is completed.

2.2.8 Facility Operator Changes

1) Where the operator of a facility changes, the operator of record must request a facility operator change before the 18th day of the month, or if the 18th is not a business day then the next business day, or as otherwise directed by the ERCB.

The new operator will not be able to submit volumetric data to the Registry until the change in operator has been updated in the Registry via the concurrence process. The operator of record will remain responsible for any volumetric submissions until the new operator accepts the notification.

2.2.9 Corporate Amalgamations

1) Where the operator of record's Business Associate (BA) ID is amalgamated into another BA ID, the operator of record must submit a request for a facility operator change using the operator of record's BA ID before the 18th day of the month, or if the 18th is not a business day then the next business day, or as otherwise directed by the ERCB.

The new operator of record of the affected facilities does not have to be the successor in the amalgamation; however, only BAs with an ACTIVE status in the Registry can be selected as the next operator of the facilities.

2.3 Facility/Pipeline Information

1) By the 18th day of the month, or if the 18th is not a business day the next business day, or as otherwise directed by the ERCB, the operator of the facility or pipeline must accurately report
   a) the particulars of the crude oil, synthetic crude oil, gas, marketable gas, ethane, propane, butanes, natural gas liquids, helium, sulphur products, crude bitumen, water, waste products, and other substances purchased, received, processed, disposed of, and sold;
   b) the particulars of the source from which the component, product, and substance listed in (a) above were received or processed;
   c) the particulars of the volumetric amount from each source for each component, product, and substance listed in (a) above;
   d) the particulars of the inventories, disposition, and delivery destinations of all components, products, and substances received, processed, and recycled listed in (a) above;
   e) the particulars of disposition when product leaves the province;
   f) the particulars of fuel gas flared, vented, and used;
   g) the volumetric amount of sulphur emissions at the facility;
   h) the SHUTIN activity if the facility or pipeline was shut in for the entire preceding month; and
   i) any further particulars the ERCB may require for a particular facility or pipeline.

An accurate report of all activities, products, volumes, and product movements must be submitted for each active facility.

2) Where a facility has an active status and has opening inventory but was shut in for the entire month, the operator of the facility must make a volumetric submission, with the activity closing inventory reported.

Because the opening inventory is auto-populated based on the previous month's closing inventory, it is only pending and is not a submission until an activity is entered.

3) Where a facility has an active status and does not have an opening inventory and is shut in for the entire month, the operator of the facility must make a volumetric submission with the activity SHUTIN reported.

2.3.1 Proration Factors

If the reporting facility type is Battery (BT) with a subtype of proration and the well production activities are reported, or if the facility type is Custom Treater (CT) and receipts are reported, proration factors for oil, gas, and/or water are required for each reported product.

1) Where a reporting facility type is BT with a facility subtype of proration and the well production activities are reported, or if the facility type is Custom Treater (CT) and receipts are reported, the operator of the facility must provide proration factors for each reported product of oil, gas, and/or water.

2.3.2 Inventory

If a facility had closing inventory from the previous month, the facility opening inventory (INVOP) product and volume for the current month will be auto-populated by the Registry for the facility. At the ERCB filing deadline (18th day of the month, or if the 18th is not a business day the next business day, or as otherwise directed by the ERCB), the Registry will roll over all closing inventory volumes to the next month's opening inventory and be ready for the next month's volumetric submission. The operator of the facility will never be able to enter the opening inventory activity, nor will the operator of the facility be able to change a volume that was auto-populated by the Registry for the facility.

If amendment occurs for a previous month and the amendment changes the closing inventory volume, the Registry will create a pending volumetric submission for the next proceeding month with the changed opening inventory volume. The facility operator is also required to submit an amendment for this month.

At Registry implementation, the ERCB populated the October 2002 opening inventory using September 2002 closing inventories for facility statements received at the ERCB by October 18, 2002. If changes to your October 2002 opening inventory are required, the operator of the facility must balance the facility using the inventory adjustment activity (INVADJ).

2.3.3 Receipts and Dispositions

In most cases, deliveries to another facility must be reported as a receipt by the receiving operator of the facility, and a corresponding disposition will be auto-populated by the Registry at the shipping facility. However, if the reporting facility is a pipeline (PL), meter station (MS), or terminal (TM), there may be situations where the facility operator reports the disposition, and a corresponding receipt will be auto-populated by the Registry at your facility.

The Registry will flag a facility as pending when the disposition or receipt volumes are auto-populated by the Registry for the facility. This pending transaction is not part of facility submission until the facility operator "accepts" the pending disposition or receipt, even when the facility operator has completed facility submission and is only waiting for the auto-populated volumes. It is the facility operator's responsibility to ensure that the auto-populated volume is accepted and becomes part of facility submission.

A facility operator cannot modify volumes that have been auto-populated based on another facility's submission. If a facility operator disagrees with a volume, the operator must contact the receiving or disposing facility operator who created the auto-populated volume and request a correction to the volume.

When a volume is disposed of to a non-reporting facility (e.g., out of province), the disposing facility operator must report the disposition.

2.3.4 Balance

The Registry will run a process that calculates activities, totals individual activities, and balances the facility. When the operator of the facility completes an on-line edit or queries a facility's volumetric data, the system will run this process automatically so that the current up-to-date balance for the facility is displayed. Operators of a facility will see an on-line message if problems exist, and they may request that an error (noncompliance) report be run on specific facilities or all facilities. The Registry will automatically run a balance on all

facilities two days before the ERCB filing deadline and again at the filing deadline to identify facilities in error and/or out of balance.

The run two days before the filing deadline is a facility operator's final notice before the submission filing deadline. Any balance errors not corrected before the filing deadline are subject to ERCB noncompliance fees. If an operator of a facility submits volumetric data for a facility during this two-day period, the operator should request a noncompliance report to ensure that the final balancing of your facilities is correct.

3 Records Management and Retention

3.1 Well

The licensee of a well that is producing, injecting, or disposing or is capable of producing, injecting, or disposing must keep at its field office or other place of business in Alberta a daily record of the operations of the well for a period of one year in a form satisfactory to the ERCB.

1) The licensee of a well must ensure that the record includes the original recording of measurements used to determine the particulars for the record and must demonstrate
   a) the volumetric amounts of crude oil, condensate gas, natural gas liquids, crude bitumen, water, air, steam, and other component, product, and substance produced and reproduced from, injected, or disposed of into the well;
   b) the source from which the products and substances listed in (a) above were obtained;
   c) the particulars of any treatment to which the products were subjected and average separator or treater pressures if in use;
   d) the total number of hours of production, injection, and disposal of each product or substance during each month; and
   e) any further particulars the ERCB may require.

3.2 Facility and Pipeline

1) An operator of a facility or a licensee of a pipeline must keep at its field office or other place of business in Alberta for a period of one year a daily record of crude oil, synthetic crude oil, gas, marketable gas, ethane, propane, butanes, natural gas liquids, helium, crude bitumen, sulphur products, water, waste products, and any other component, product, or substance, including
   a) a list of the products and substances purchased or received into the facility;
   b) particulars of the source from which the products and substances were received;
   c) particulars of the price payable, quantity, and quality of the products and substances received from each source;
   d) particulars of the inventories, consumption, disposition, and delivery destinations for all the products and substances received, refined, processed, and sold;
   e) particulars of the deliveries of all sales to retail distributors or for ultimate use within the province, including volumes, number of customers, and classification of customer accounts;
   f) particulars of the amount realized from the sale of the products and substances; and
   g) any further particulars the ERCB may require.

4 Compliance Assurance

ERCB requirements are those rules that a responsible duty holder as specified in legislation (e.g., licensee, operator, company, applicant, approval holder, or permit holder) is required to follow. The term "must" indicates a requirement, while terms such as "recommends" and "expects" indicate a recommended practice.

Each ERCB requirement is numbered and has been risk assessed. Noncompliance with any requirement will result in the duty holder receiving a response in accordance with the latest edition of *Directive 019: Compliance Assurance.* A list of noncompliant events is on the ERCB Web site www.ercb.ca under Industry Zone: Compliance and Enforcement: Noncompliant Events.

All duty holders must be aware of ERCB requirements and have the infrastructure in place to ensure compliance. All requirements in this directive have been risk assessed as low risk noncompliance events, as listed in the Error Message Identifier Description.

The ERCB encourages all duty holders to be proactive by monitoring their compliance with ERCB requirements. If a duty holder identifies a noncompliance, it should inform the ERCB of the noncompliance for consideration under the ERCB Voluntary Self-Disclosure policy set out in *Directive 019.*

For further details on compliance assurance, including *Directive 019*, see the ERCB Web site www.ercb.ca under Industry Zone: Compliance and Enforcement.

4.1 Fees

To address the costs and quality issues caused by late submissions and data discrepancies in reporting of volumetric data, the ERCB has a schedule of fees in the *Oil and Gas Conservation Regulations*, Part 17, Schedule of Fees. An operator that has missing data or data discrepancies that are not corrected before the ERCB filing deadline date may receive an invoice for fees. A list of risk-assessed noncompliance error messages is available on the Web at ERCB Home: Industry Zone: Compliance and Enforcement: Risk Assessed Noncompliance.

4.2 Review of Enforcement Actions

If an operator wishes to request that the ERCB Production Accounting group review an enforcement action regarding volumetric deficiencies, the Production Accounting group must receive the request within 15 calendar days of the invoice date. The operator should send the request to the ERCB using the ERCB Enforcement Action Review Template or by e-mail to pa.help@ercb.ca; fax to (403) 297-7303; or mail to the attention of Team Leader, Production Accounting, Information Collection and Dissemination, at Suite 1000, 250 – 5 Street SW, Calgary, Alberta T2P 0R4.

The ERCB will notify the submitting operator of the results of the review in writing within 10 calendar days of its receipt. If the request is granted, the ERCB will issue a refund or a credit note.

If an operator, approval holder, or licensee disagrees with a Production Accounting group's review decision, it may submit an appeal to the ERCB Enforcement Advisor. For further details, see Section 5 of *Directive 019.*